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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,609	02/20/2002	Duncan Boniface	CEL1.0020	9556

7590 10/20/2004

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EXAMINER

ENSEY, BRIAN

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,609

Applicant(s)

BONIFACE, DUNCAN

Examiner

Brian Ensey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 25 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 12, 14, 16-18, 22 and 26 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 9-11, 13, 15, 19, 20, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "said coil" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "said coil" in 4. There is insufficient antecedent basis for this limitation in the claim.

Dependent claims 23 and 24 appear to be dependent from independent claim 22 not independent claim 21 as currently disclosed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 12 and 17 are under 35 U.S.C. 102(b) as being anticipated by Knowles, U.S. Patent No. 2,295,483.

Regarding claim 1, Knowles discloses a pole piece (124) for a loudspeaker assembly, comprising: a cylindrical body having an end face; said end face having a blind recess with an interior circumferential wall; and said circumferential wall having inwardly directed heat-dissipating ribs (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 2, Knowles further discloses said body has a longitudinal axis; and said ribs are aligned with said longitudinal axis (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 3, Knowles further discloses said ribs are equispaced around said circumferential wall (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 4 (originally presented), Ssutu further discloses said body has a longitudinal axis; and said ribs are evenly spaced about said longitudinal axis (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 7, Knowles further discloses said blind recess has a taper decreasing in diameter away from said end face (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 12, Knowles further discloses each of said ribs has a trapezoidal shape with respect to a horizontal cross-section through said body (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Regarding claim 17, Knowles further discloses each of said ribs extend radially inward from said circumferential wall (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knowles as applied to claim 1 above, and further in view of Button U.S. Patent No. 4,933,975.

Regarding claim 8, Knowles discloses a pole piece as claimed. Knowles does not expressly disclose said ribs have a taper. However, tapered cooling ribs are well known in the art and Button teaches tapered cooling ribs (See Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize tapered heat-dissipating ribs for increased air-flow through the cooling area.

Regarding claim 14, Knowles discloses a pole piece as claimed. Knowles further discloses each rib has radially sloping side faces (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24). Knowles does not expressly disclose each rib further has a radially sloping inner face. However, tapered cooling ribs are well known in the art and Button teaches tapered cooling ribs (See Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize tapered heat-dissipating ribs for increased air-flow through the cooling area.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knowles as applied to claim 1 above, and further in view of O'Neill U.S. Patent No. 4,580,015.

Regarding claim 16, Knowles discloses a pole piece as claimed. Knowles does not expressly disclose said body is forged. However, the forging of pole piece bodies is well known in the art and O'Neill teaches a forged pole piece. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a well established manufacturing process.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knowles as applied to claim 1 above, and further in view of Proni U.S. Patent No. 6,229,902.

Regarding claim 18, Knowles discloses a pole piece as claimed. Knowles does not expressly disclose the ribs comprise alternate ribs such that there are radially shorter ribs. However, Proni teaches alternate ribs such that there are radially shorter ribs (See Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to vary the rib length for increased air-flow through the cooling area.

Claims 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knowles in view of Ssutu U.S. Patent No. 6,535,613.

Regarding claim 22, Knowles discloses a loudspeaker assembly, comprising: a housing; a diaphragm supported by said housing; a moving coil coupled to said diaphragm; a cylindrical body having an end face communicating with ambient atmosphere; said cylindrical body at least partially disposed within said coil; and said end face having a blind recess with a circumferential wall having inwardly directed heat-dissipating ribs (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24). Knowles does not expressly disclose a permanent magnet encircling said coil. However, the use of permanent magnets in place of a magnetic coil in loudspeakers is well known in the art and Ssutu teaches a permanent magnet encircling said coil (See Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a permanent magnet for easier construction and reduced power consumption.

Regarding claim 26, Knowles discloses a housing; a diaphragm supported by the housing, a moving coil coupled to the diaphragm, a head piece comprising: a cylindrical body having an end face communicating with ambient atmosphere; said cylindrical body at least partially disposed within the coil; and said end face having a blind recess with a circumferential

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wall having inwardly directed heat-dissipating ribs (See Figs. 6-8 and col. 10, line 60 to col. 11, line 24). Knowles does not expressly disclose a permanent magnet encircling the coil.

However, the use of permanent magnets in place of a magnetic coil in loudspeakers is well known in the art and Ssutu teaches a permanent magnet encircling said coil (See Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a permanent magnet for easier construction and reduced power consumption.

Allowable Subject Matter

Claims 5, 6, 9-11, 13, 15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21 and 25 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 703-305-7363. The examiner can normally be reached on Mon-Fri: 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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Or faxed to:


(703) 872-9306, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to: 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKE

October 13, 2004


CURTIS KUNTZ
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